Position Description – Final

PD #:   **Replaces PD #:**

Shred:

IT Specialist

GS-2210-11

Installation: **Major Command:**

Region:

Citation 1: OPM, JFPCS Administrative Work in the Information Technology Group, GS-2200, dtd. May 2001 (Series Coverage, GS-2210)

Classified By:
Classified Date:

FLSA:	**Drug Test Required:**	**CIPMS PD:**
Career Program:	**Financial Disclosure Required:**	**Acquisition Position:**
Functional Code:	**Requires Access to Firearms:**	**Interdisciplinary:**
Competitive Area:	**Position Sensitivity:**	**Target Grade/FPL:**
Competitive Level:	**Emergency Essential:**	**Career Ladder PD:**

MAJOR DUTIES

Summary: Serves as an Information Technology (IT) Specialist in the Information Management (IM) organization of a U.S. Army Corps of Engineers (USACE) District. Provides complex IT support services in four specialty areas including systems administration, customer support, network services, and Internet. Within these four specialty areas, participates in accomplishing technical, analytical and advisory functions pertinent to the development of local policies, plans, and processes and ensuring that work accomplished is in compliance with higher authority policies and guidelines.Ensures the rigorous application of information security/information assurance policies, principles, and practices in the accomplishment of work in all specialties. Performs the following:

1.   Provides customer support services for District IT equipment, software, systems, interfaces and networks. Analyzes and diagnoses difficult & complex problems reported by IT users in District organizations pertinent to a wide variety of District software applications, operating systems and IT equipment. Investigates, analyzes and evaluates reported problems in system software, applications software interfacing, and/or IT equipment to isolate causes of malfunctions. Develops modifications and procedures to resolve the problems, and initiates corrective action. Develops standard problem resolution methods and procedures for use in problem resolution databases. Coordinates with IT customers and specialists to identify IT improvements and ways to provide greater effectiveness and economy of services. Develops plans for installing, configuring, troubleshooting and maintaining user IT equipment and software. Reviews installed systems and diagnoses user problems encountered. Resolves problems and conflicts when procured items do not meet with prescribed specifications. Evaluates alternative approaches to problem resolutions; recommends courses of actions, modifies and adapts precedent solutions to accommodate unique requirements to solve a variety of computer program problems and makes significant departures from previous approaches to similar programs in order to make a better program/programs interrelationship. Trains system users on new or changed operating systems, IT equipment, software, and the application of information assurance/security policies and guidelines.

Provides individual counseling and conducts classroom training sessions. Establishes the technical procedures to be followed in resolution of recurring system and/or component problems. Provides guidance and assistance with problems in the use of assigned systems. Interprets and explains IT regulations, policies and directives and executes and applies local procedures, policies, guidelines and training plans for automation users. Issues technical information and bulletins via the Intranet concerning IT user problems and resolutions. Ensures timely customer service and support in order to minimize downtime.

2. Plans, designs, develops, tests, implements Internet, Intranet, and Extranet activities including systems applications development and technical management of web sites to support customer needs. Studies and recommends technical design and structure of Internet services; monitors functionality, security, and integrity of Internet services; troubleshoots and resolves technical problems with Internet services; collects and analyzes Internet service usage and performance statistics; evaluates new Internet services and technologies; and provides technical advice to Internet content providers. Conducts studies to identify and determine Internet administrative and technical requirements and specifications, equipment and facilities necessary to develop, modify, and implement Internet services, sites, etc. Identifies strategies to accommodate customer needs, prepares drafts for review by the using organization (s), and incorporates their review comments and concerns. Prepares study reports comparing alternatives for the economic justification of costs, time, and equipment usage, and generates complex queries and reports and makes recommendations to offset adverse impacts. Prepares work plans, program logic, special instructions, and detailed flow charts covering processes covered and Internet needs. Monitor program development and tests and debugs programs upon completion. Consults with Internet and Intranet users to evaluate requirements and advises on IT equipment and software capabilities and maintenance responsibilities. Studies customer requirements, translating them into web design steps, web page formats, and file and directory structures. Determines how web pages should be organized and the procedures to organize and obtain required information. Designs and develops dynamic and static web interfaces using HTML, Visual Basic, JAVA, JavaScript, and VB Script. Internet/Intranet programming support includes, but is not limited to, Perl, C++, XML. Troubleshoots and resolves technical problems with the design and delivery of Internet services, and evaluates new Internet services and technologies. Participates with other staff members in fine tuning data structures to support information and decision systems. Tests, evaluates, and implements new web-based applications. Administers Intranet and Internet web servers ensuring functionality, installing software updates and maintaining server logs. Provides server access to page masters by maintaining user accounts and file permissions. Analyzes Internet and Intranet activity and tests web servers and capabilities. Responds to, prevents, and reports attacks on the system and applies security patches as necessary.

3. Conducts system administration (SA) studies and recommends necessary IT action pertinent District SA support. Plans and schedules the installation of new or modified IT equipment, operating systems, and software applications. Coordinates and reviews the testing of vendor-provided software. Continually reviews IT equipment and software ensuring that it is responsive to user needs. Manages accounts, network rights and access to systems and equipment. Manages system resources, the installation and integration of systems fixes and workarounds, updates, and enhancements including performance, capacity, availability, serviceability, and recoverability. Identifies and recommends considerations for use in local SA operating procedures. Maintains systems configuration and resolves interfaces and interoperability problems. Provides advisory services in implementing approved systems. Develops automated programs, using appropriate computer languages, needed to process planned automated systems. Analyzes planned logic and workflow through the computer and related equipment and develops planned approaches or revisions. Identifies and coordinates the development of sample test data to simulate all possible conditions designed into the planned automated systems. Runs or coordinates related debugging and problem resolution. Ensures that complete programs utilize the minimum IT equipment processing time. Provides detailed operating instructions for IT equipment. Reviews and

recommends approval or disapproval of all significant deviations from previously approved IT systems. Conducts reviews of installed IT systems to ensure effectively installation and achievement of planned technical and economic benefits. Ensures that customers receive the most current versions of applicable software. Identifies the need for and recommends revisions to planned systems or develops and authorizes the use of systems deviations. Prepares reports pertinent to follow-up findings and makes oral and written presentations. Maintains and documents in-house computer configurations. Recommends software procedures for use by the operations staff and identifies and recommends standards and criteria for assessing network server performance. Evaluates machine usage and on the basis of current usage patterns, develops plans for the necessary acquisition to support future requirements. Advises other IT Specialists as to system level errors and the available IT equipment and software correction procedures. Implements systems software changes and new operating system releases and maintains the operational status of systems by isolating errors and in concert with vendors technical staff. Develops corrections to either IT equipment or software malfunctions. Prepares, recommends, coordinates and implements plans for the recovery of system data in the event of hardware or software failure. Provides interpretations of higher authority regulations and guidance concerning SA.

4. Conducts studies to identify and determine District network administrative and technical requirements and specifications, equipment configuration and facilities necessary to develop, modify, and implement network system and service to supports District users. Designs, develops, implements, coordinates, monitors, and maintains network systems, and services to support customer needs. Develops strategies to accommodate needs, prepares drafts for review by the using organization (s), and incorporates their comments and concerns. Prepares study summaries for comparison of alternatives pertinent to the economic justification of costs, time, and equipment usage, and generates complex queries and reports. Develops recommendations concerning major project ramifications and to offset adverse impacts. Develops work plans, program logic, special instructions, and detailed flow charts covering processes covered and network services needs. Develops/implements configuration management plans for Local Area Networks (LANs) and Wide Area Networks (WANs) and creates network maps for establishing/maintaining an organization's network architecture, infrastructure, topology, protocols, and connectivity between remote sites. Evaluates network software, hardware, and communications links, specification and installation. Analyzes, assesses and interprets the LAN/WAN user and administrator requirements for software to be used. Selects special multi-user software, and analyzes special IT equipment such as microcomputers, minicomputers, mainframe and terminal connections to the LAN/WAN network communications equipment. Administers the operating LAN/WAN environment. Analyzes, assesses, and provides for user access via the addition of nodes or reorganizing existing nodes. Identifies and assesses network performance for IT equipment/software utilization. Fine-tunes the system, equipment, software, etc., to increase systems performance. Ensures appropriate system maintenance, system file backup, and system mass storage utilization including data security. Develops programs for user interaction with the LAN/WAN and associated Information Processing Equipment. Reviews and recommends approval of the development of shared databases and shared application systems developed for implementation via the LAN/WAN. Monitors application database and data file utilization by LAN/WAN end users via system utilities to ensure appropriate use of the District's information resources. Initiates corrective actions to resolve noncompliance issues. Develops documentation to provide LAN/WAN users with information necessary for access and use, software availability and use, shared information availability and use. Conducts training on the use of LAN/WAN facilities. Plans for and installs original or new releases of existing software for network management purposes. Ensures installation plan includes provision for IT equipment and software testing, user training, documentation, and database/data file reorganization. Plans for and installs IT equipment additions and/or upgrades. Analyzes and resolves system IT equipment/software failures. Develops LAN/WAN standards and procedures including recommended network applications, general purpose software, and generic LAN/WAN attributes and capabilities. Implements security control procedures for the LAN/WAN.

Performs other duties as assigned

Factor 1 – Knowledge required by the position   FL 1-7   1,250 pts.

-      Knowledge of a wide range of IT standards, principles, concepts, methods, policies, and approaches applicable to the systems administration, network services, Internet and customer support IT specialties. Knowledge of the full variety of District applications, operating systems and components, protocols, and the IT equipment & software to study user system and network problems and identify/develop and implement the best methods, procedures and processes to resolve such problems, reduce and minimize disruptions in critical user business activities and to provide the most effective support for users. Knowledge of network systems design, development, installation, operations, and maintenance concepts, methods and procedures and the District's network architecture, topology, protocol and remote access technology configuration management and LAN/WAN concepts, methods and practices to provide network services.   Knowledge of customer support, systems administration, network services and Internet state-of-the-art IT equipment and software and approaches to networking and interfaces as well as the District's existing IT infrastructure to determine their applicability and susceptibility for use to resolve recurring user problems.

-   Knowledge of and skill in applying current programming/scripting languages, Internet technologies and protocols in order to analyze the Internet potential of systems, networks and data.   Knowledge of, and skill in applications system design and Application Programming Interfaces (API) for web-based interfacing. Knowledge of standardized administrative practices and procedures to work with IT and subject matter specialists during data gathering phases of assignments. Knowledge of standard Internet protocols (Transmission Control Protocol/Internet Protocol - TCP/IP); Security Sockets Layer (SSL) and encryption; NT systems and a wide range of computer techniques, requirements, methods, and procedures including familiarity with the approaches of the District, other districts within USACE, other Government agencies, and the private sector. Such knowledge is necessary to better analyze, evaluate, and make recommendations on major aspects of the District's web server environment.

-   Knowledge of District IT resources and infrastructure (including automated systems, equipment and software) and new and emerging IT and/or industry trends. Applies this knowledge to study & resolve District IT user, network and systems problems; create Internet applications that enhance user-developed content & meet business and technical requirements; provide Internet services that optimize customer experience; and to create web pages.   Knowledge of the organizational structures, functions, work processes/programs of the District, as well as analytical ability to gather, assemble and analyze facts, draw conclusions and devise solutions to problems which will increase the effectiveness of the District business process. Knowledge of and experience in the use of oral and written communication methods and techniques to accomplish continuing coordination with District customers and conduct/participate in District IT training.

Factor 2 – Supervisory Controls   FL 2-4   450 pts.

Works under general supervision. Supervisor assigns overall responsibilities, outlines objectives to be achieved, and provides the resources available for use. Assignments may come directly from the user/customer or from the supervisor and the incumbent has independent responsibility for assignments pertaining to the four above identified IT specialties. Consults with the supervisor on timeframes, scopes of assignments, stages in the study or problem resolution process and possible approaches on controversial or problematic situations. Independently applies and interprets guidelines and regulations and plans, designs and organizes projects associated with assignments. Coordination is continuing (users and other impacted IM Specialists). Independently plans and carries out the necessary coordination

including that involving lower level IM Specialists and contract employed persons. Is a source of guidance and advice within the District concerning customer support, systems administration, network services and Internet assistance and support matters and independently provides advice and guidance within the District and resolves problem matters. Completed work is typically accepted without technical change but is reviewed for effectiveness in meeting user requirements, conformance with policy, accomplishment within acceptable timeframes, and customer satisfaction.

Factor 3 – Guidelines   **FL 3-3 275 pts.**

Guidelines include agency regulations, manuals and policies which provide overall goals and define limitations and overall objectives; USACE regulations, policies and procedures concerning customer support, systems administration, network services and Internet, Intranet and Extranet requirements/activities for all automated systems, net works, IT equipment and software associated with the District IT program; District regulations and guidelines; and a variety of manufacturers' manuals and handbooks pertaining to the wide range of IT equipment and software in use in the District. Must use judgement in selecting the proper guide to apply to assignments and interpreting such guidelines as necessary to fit differing conditions. Uses precedent approaches making adaptations to compensate for differing problems or issues. Applies judgement to anticipate problems, research trends in state-of-the-art technology, and develop special adaptations to satisfy requirements.

Factor 4 – Complexity   **FL 4-4   225 pts.**

Customer Support work involves difficult and complex problem resolution studies requiring the analysis and evaluation of a variety of complex factors involved with District reported user problems connected with any of the District IT networks, systems, databases, and associated IT equipment and software. Work involves many recurring and non-recurring problems (software applications malfunctions, software interfacing problems, problems with network access protocols, integration or configuration related issues, etc.) with any of the IT equipment, software, systems, interfaces, and networks requiring the use of different an unrelated processes and methods. Applies judgement in identifying and analyzing problem causes, developing the approach to be used in problem resolution, coordinating with other IT Specialists, correcting problem matters & issues, and developing the processes to prevent recurrence.

Network services and Internet Assignments involve a variety of system studies requiring in-depth analysis of complex factors dealing with network, Internet, Intranet, and Extranet usage, needs and enhancements involving many different and unrelated processes and methods. Work involves establishing criteria, formulating projects, trouble shooting server equipment/software, and reviewing server loads and recommending load balancing and verifying system backup and restoration. The incumbent must develop and refine Internet services (web sites, list servers, etc) and develop strategies and plans to satisfy District Internet needs.

Systems administration work covers computer equipment, software, all network servers, and a myriad of system interfaces. The work includes planning, coordinating, modifying, implementing and troubleshooting all servers for the District LAN and WAN to ensure continued effective functioning and maintenance. Work requires the analysis, study and consideration of a variety of complex automation/systems factors and many different and unrelated processes and methods. Applies judgement and ingenuity in the analysis and resolution of system problems, recommending the application of improvements in the management of network servers, and coordination with numerous District users concerning the effective operation and maintenance of District networked systems.

Work in all four specialty areas is complex due to continuing changes in District business requirements and the rapidly changing IT environment, and technology. Such work **requires the** incumbent to keep

updated on changing IT, continuously evaluate changing future organizational information needs, and exercise judgement to identify, evaluate, recommend the use of, and apply the most effective IT strategies, methods and techniques for District use.

Factor 5 – Scope and Effect   **FL 5-4 225 pts.**

Work involves serving as an advisor and technical specialist within a District concerning customer support, system administration, network services and Internet and District IT user situations, and problems. Work includes planning, coordinating, and conducting/directing in-depth studies and analysis of District IT user problems trends and needs; and developing strategies and plans to satisfy those needs. Resolves problems, leading to the implementation of revised or modified procedures, new or modified IT hardware, changed system interfacing procedures and techniques and new or modified District IT training programs. This work enables District users to apply IT in accomplishing their technical and administrative business processes. Work includes serving as an advisor within the District concerning needs, plans, situations and problems associated with the four above identified specialty areas. The work involves troubleshooting, developing and refining services and consulting with program specialists in developing new services and/or enhancing existing services that expand current information dissemination capabilities. Work also involves planning, coordinating, and conducting in-depth studies of District IT needs, services/activities, and developing strategies and plans to satisfy those needs leading to the implementation of new/enhanced services/sites, etc.

Factor 6 - Personal Contacts
                                              FLs 6-2 & 7-b 75 pts.
Factor 7 – Purpose of Contacts

Contacts are with IM Specialists within the District, local contractor management and specialist personnel, users within the District in any of the division and separate offices and occasionally with information managers and specialists at the Division headquarters level in moderately structured settings.

Contacts are to exchange information, determine District Customer Support, network services, systems administration & Internet requirements, coordinate study work processes and problem resolution matters, plan study processes, and provide progress reports. Contact and coordination requirements are typically carried out in a cooperative environment and include efforts to influence others to utilize methods and procedures developed or sell them on the use of planned problem resolution or action; or resolve inequities and incompatible situations. Contacts with Division HQ personnel are to coordinate common IT problems, the use of standard problem resolution methods, coordinate modifications and enhancements, coordinate IT plans, coordinate security matters and issues and obtain and provide information concerning the broad-based IT situations that arise.

Factor 8 – Physical Demands   **FL 8-1 5 pts**.

Work is sedentary in nature

Factor 9 – Work Environment   **FL 9-1 5 pts.**

Work is performed in a typical office setting.

 Total points – 2510 pts. (2,355-2,750 GS-11 point range)